

# Area Air Defense Command System (AADCS) Capabilities Overview

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IMD 3-02 Experiment  
PLANEX

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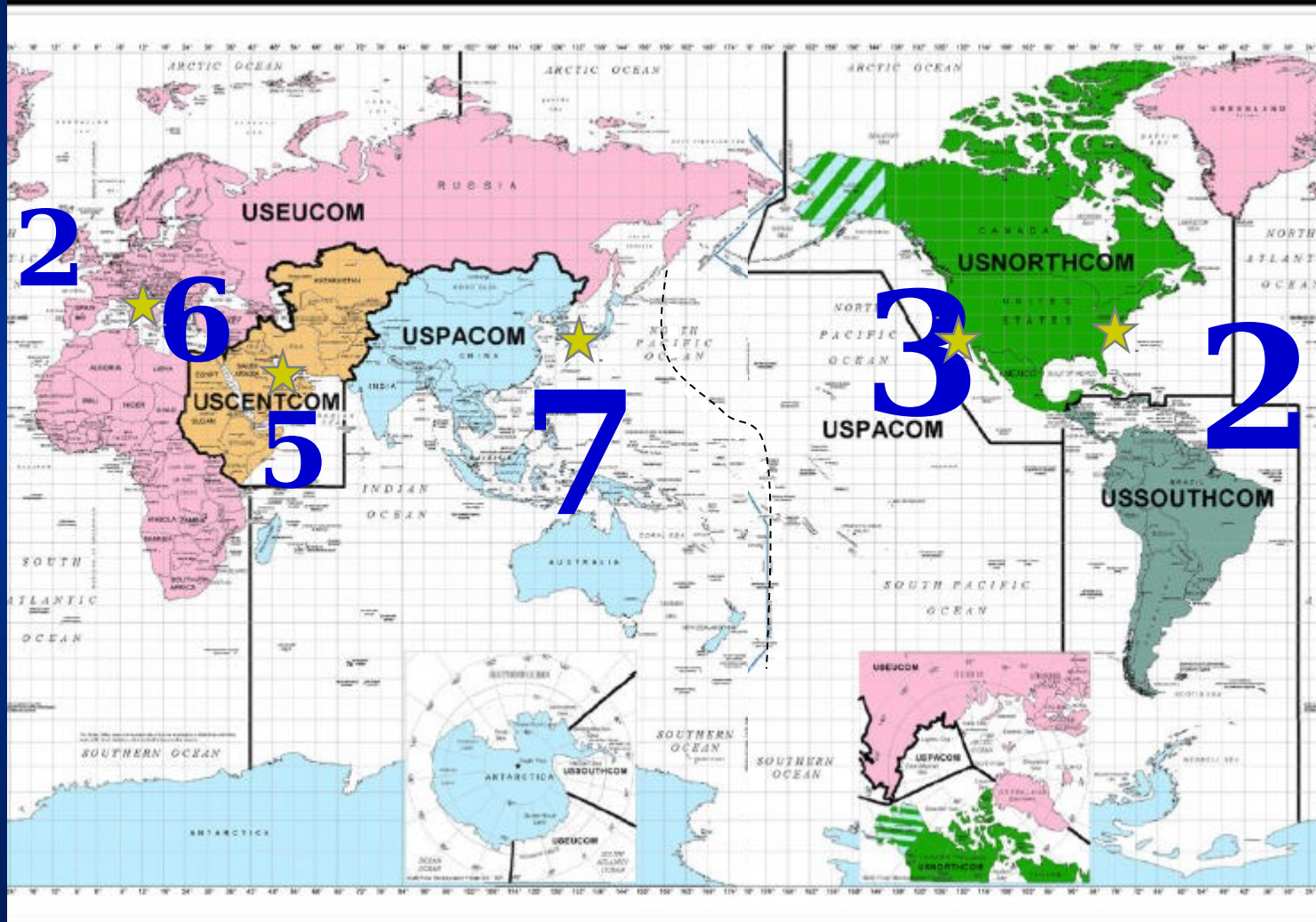
# AADCS Background

- ▮ **AADC Operational Requirements Document (ORD) Developed, Validated, and Implemented in 1998**
- ▮ **The AADC Capability (ops and plans) is currently deployed aboard**
  - ◆ Fleet flagships and one TBMD CG (initial prototype)
    - USS MOUNT WHITNEY (MTW) (LCC – 20) (C2F)
    - USS SHILOH (CG-67) (in C3F)
    - USS BLUE RIDGE (BLR) (LCC-19) (C7F)
  - ◆ AADCS has deployed to SIXTH Fleet aboard MTW, to FIFTH Fleet aboard SHILOH, and is used in SEVENTH Fleet on BLR.
- ▮ **Operational use in OIF, OEF, ONE**
- ▮ **Being installed at JNIC in July 03 (PLANEX, WARGAME)**



# Numbered Fleet AORs

★ Fleet HQ



NOTE: NORTHCOM AOR extended to seaward from North America landmass  
CFC (NAVNORTH), C3F (NAVNORTHFLT WEST), C2F (NAVNORTHFLT EA

# AADCS at Sea



- ▮ In C3F - USS SHILOH (CG-67)
- ▮ C2F - USS MOUNT WHITNEY (LCC-20)
- ▮ C7F - USS BLUE RIDGE (LCC-19)
- ▮ C5F - Ashore in Bahrain - **TBD**
- ▮ C6F - NATO - site ship / shore - **TBD**
- ▮ C3F - ashore in San Diego in '03 - **TBD**



# AADCS Plans Cell – CJTF / Command Ship Configuration



# Planning Module

▮ **AADCS allows the planner to make decisions on optimum use and placement of air and missile defense assets.**

- ♦ **Aegis (CG/DDG) (SM-3)**
- ♦ **PATRIOT**
- ♦ **AEW / AWACS**
- ♦ **CAP / DCA**
- ♦ **Tankers**
- ♦ **UAVs**
- ♦ **ESM / ECM**
- ♦ **THAAD**
- ♦ **MEADS**



AADCS Planning Cell



# AADCS Planner Main Display

PLANNING

DISPLAY

Netscape

White Board

Audio Video

NO  
AUDIO  
SESSION  
ACTIVE

Defensive Counter Air Plans	
Item Name	Comments
ATRC	Training
Briefing Copies	Copies of Briefings
Collaborate Plans	Collaborate Training Plans
Compare Plans	Plans for Demo comparison
Contour Training	Upper Tier Contour Training
Isle-Excursions	Excursions off of Isle Plan
Thailand Training	Thailand Training Scenarios
Timing Plans	Plan/Wargame timing for ORD
Train the Trainer	Training Scenarios for Trainer

New Plan

Edit Plan

Activate Plan

Compare Plans

Copy Plan

Paste Plan

Cancel Compare

Delete

Move

Rename

Edit Comments

New Folder

New Branch

Legend

ORL EOB ECOR OR FOS CONST

DCA Planning

ACA Planning

Incoming Messages

Instructors

Shutdown

plan2 08 Jan 1943Z

OK

?

OT

8 JAN 19:43Z 2002

Brg/Rng Reference  
-Display Center-  
☐ Set Ref on left clicks

UTM:

Unhook Tracks

Active Plan: LOWER TIER SWA DEMO-RRP  
(in drawer Demos)

Bearing: deg  
Range: nm  
km

Unhook Plan Item

Display

Range Scale: 4096 nm

OT Pitch

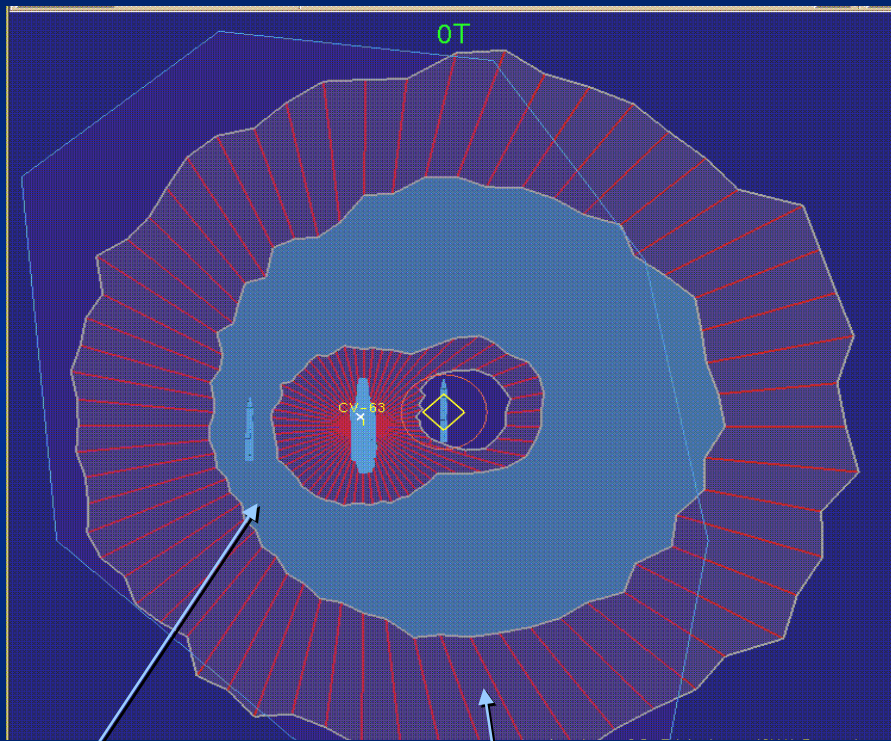
☐ Wide ☐ Center on OS

# Dynamic Air and MD Planning

- ▮ The COCOM / JTF commander changes the **DAL** priority and / or updates the **Air Campaign Plan**
- ▮ The **FOB** changes as air and missile defense assets and units are added and as tasking changes and positions modified
- ▮ Battle damage assessments (**BDA**) change the **EOB**
- ▮ The J2 approves a new intel estimate (**IPB / ECOA**)
- ▮ TCT / **Attack Operations** planning and execution of operations



# Analysis Results, Optimized Force Laydown, Surveillance & Coverage

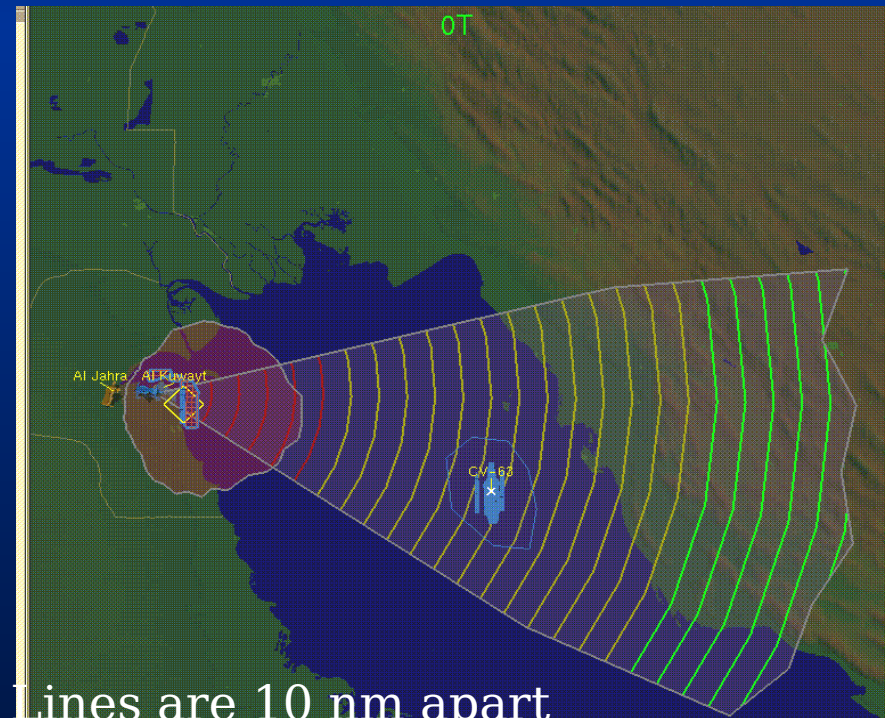


**Variable Detection and Engagement contours depending on terrain**

**Ascent Phase**

**Midcourse Phase**

**Terminal Phase**



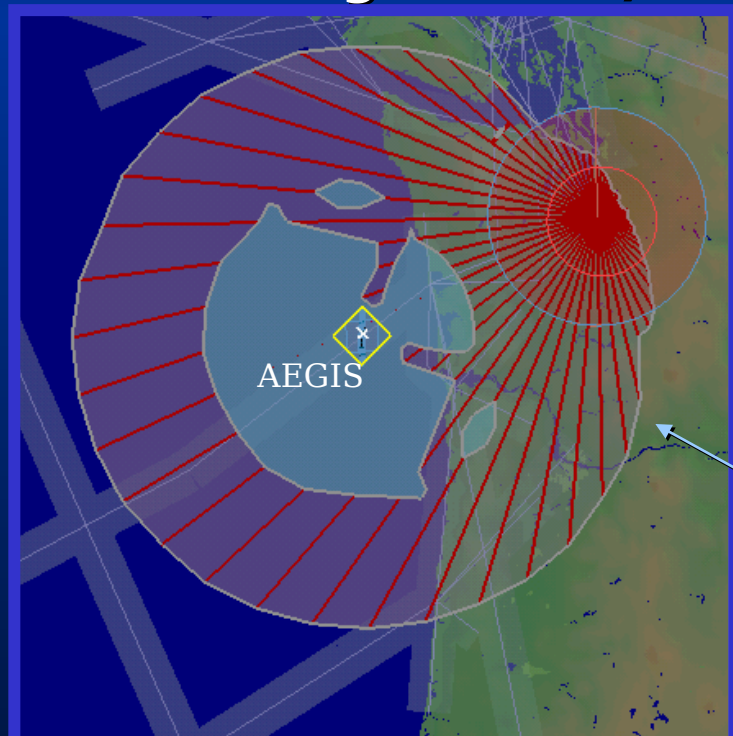
Lines are 10 nm apart

# Sensor Coverage

**Variable Detection and  
Engagement contours  
depending on**

**THREAT ALTITUDE and  
TERRAIN**

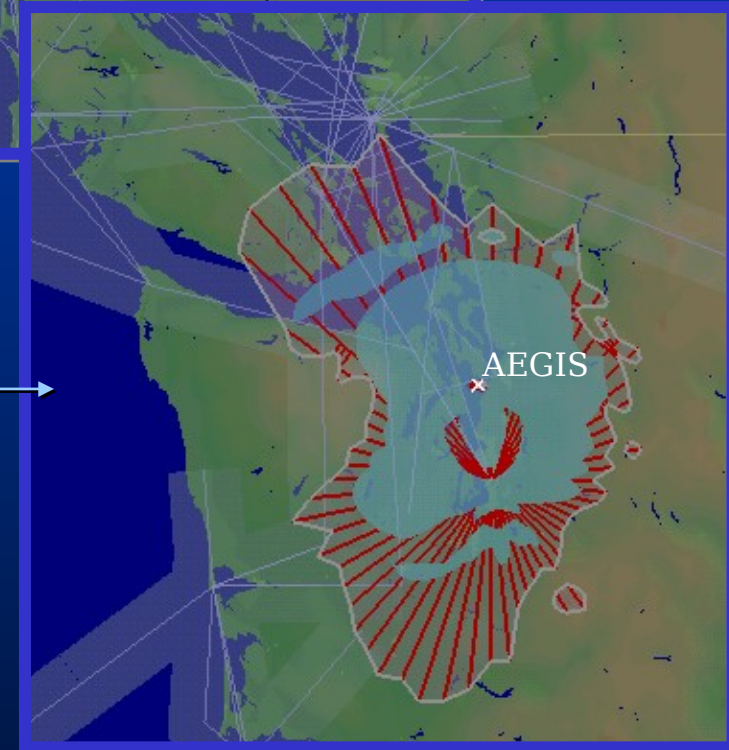
**(conventional air  
breathing threats)**



1000 ft

5000 ft

10,000 ft





Plan Review/Edit for Constrained Plan: RPAC 21MAY PLAN5fa

Defended Assets	Lock	ABT	SRBM	MRBM	Contour
HILO POPULATION CENTER	<input type="checkbox"/>			no thrt	<input type="checkbox"/>
WAIMEA KOHALA VILLAGE	<input type="checkbox"/>			no thrt	<input type="checkbox"/>
TURQUOISE CITY CTR	<input type="checkbox"/>	uncov'd		no thrt	<input type="checkbox"/>
KEHENA PRESIDENTIAL AREA	<input type="checkbox"/>			no thrt	<input type="checkbox"/>
HILO GOVT BLDGS	<input type="checkbox"/>			no thrt	<input type="checkbox"/>

Unit Limits for WAIMEA KOHALA VILLAGE    Patriot: ☐ Hawk: ☐ Ships: ☐    Save

Units	PTL	Location (constrained)	Contour	AOM
CRUISER3 USS DAHLGREN 1	0	19:42:00 N 154:54:00 W	<input type="checkbox"/>	<input type="checkbox"/>
A/1-1 ADA(P)	309	20:04:18 N 155:42:37 W	<input type="checkbox"/>	<input type="checkbox"/>

**Move Unit**

TBM Threat Assignment

Upper Tier

Lower Tier

Unit Loadout

SM2 BLK3A: 40

SM2 BLK3B: 40

SM2 BLK4A: 20

SM3: 15

Threat to DA	Type	Raid Size	Sector	Contour
BARBERS POINT				
SCUD B	TBM	1	297-303	<input type="checkbox"/>
Full DA Coverage				
SCUD C	TBM	1	297-303	<input type="checkbox"/>
Full DA Coverage				
HICKAM				

Selected Unit has been planned to cover DA against Threat

**AADC PLAN**    **CC Plan**    **Units**

☒ SAM    Engage Pk LoTier: 90    LoTier Coverage

☒ Surveill    Threats: ☒ Union ☒ Intersect    UpTier: 90    UpTier Coverage

Unassigned Threat Contours    ABT: 90    ABT Intercept & Detect

Navigate    Auto Recenter    Discard Changes    Done

# Plan Summary Panel

Plan Comparison			
	Thailand-2a-1	Thailand-2a-2	Thailand-2a-3
<b>Thon Buri</b>	FULLY COVERED	FULLY COVERED	FULLY COVERED
MAX TBM RAID SIZE	4	4	4
MIN TBM PROB. KILL	0.850	0.950	0.950
MAX ABT RAID SIZE	6	6	6
MIN ABT PROB. KILL	0.850	0.850	0.850
<b>UNITS</b>	CG-68 DDG-57 D/1-1 ADA(P)	C/1-1 ADA(P) D/1-1 ADA(P)	A/1-1 ADA(P) B/1-1 ADA(P) C/1-1 ADA(P)
<b>THREATS</b>	Burm2 Cam1 Cam2 Laos2 Laos4	Burm2 Cam1 Cam2 Laos2 Laos4	Burm2 Cam1 Cam2 Laos2 Laos4
<b>CV-63</b>	FULLY COVERED	FULLY COVERED	FULLY COVERED
MAX TBM RAID SIZE	0	0	0
MIN TBM PROB. KILL	0.850	0.850	0.850
MAX ABT RAID SIZE	6	6	6
MIN ABT PROB. KILL	0.850	0.850	0.850
<b>UNITS</b>	CG-71	CG-68 CG-71 DDG-51	CG-68 CG-71 DDG-51
<b>THREATS</b>	Burm2 Cam1 Cam2 Cam5	Burm2 Cam1 Cam2 Cam5	Burm2 Cam1 Cam2 Cam5
<b>CVN-68</b>	FULLY COVERED	FULLY COVERED	FULLY COVERED
MAX TBM RAID SIZE	0	0	0
MIN TBM PROB. KILL	0.850	0.850	0.850
MAX ABT RAID SIZE	6	6	6
MIN ABT PROB. KILL	0.850	0.850	0.850
<b>UNITS</b>	DDG-51	DDG-57	DDG-57
<b>THREATS</b>	Burm2 Cam1	Burm2 Cam1	Burm2 Cam1
<b>Port 1</b>	FULLY COVERED	FULLY COVERED	NOT COVERED
MAX TBM RAID SIZE	0	0	0
MIN TBM PROB. KILL	0.850	0.850	0.850
MAX ABT RAID SIZE	6	6	6
MIN ABT PROB. KILL	0.850	0.850	0.850

Show Threat Types

**Allocation**    **Coverage**

Quit

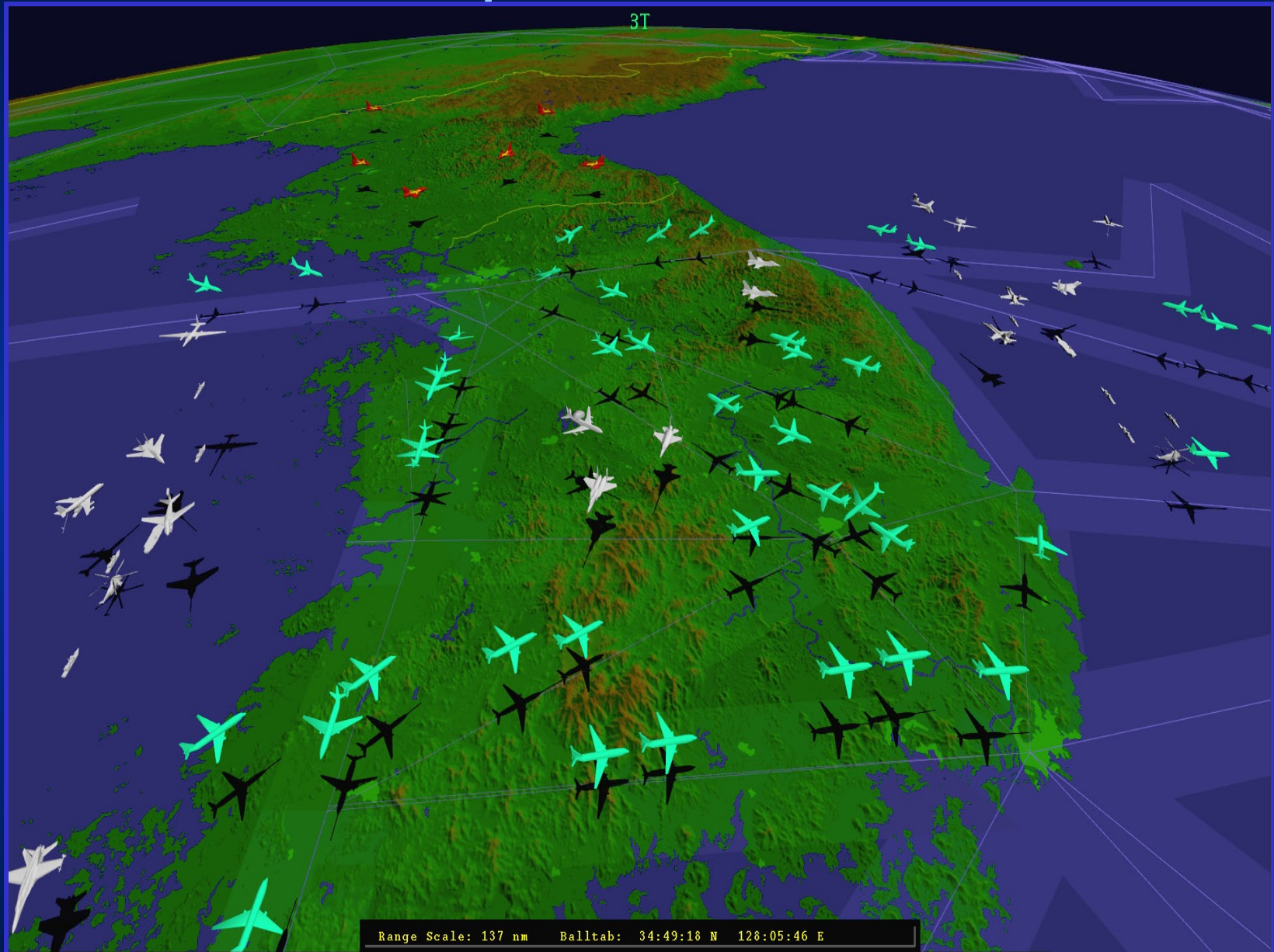
## Multiple Plan Analysis Comparison

# AADC Planning - Outputs

- ▮ **Provide analytical trade-off's to JFACC / AADC / Battle Group Commanders for employment of forces:**
  - ♦ **CAP / FEZ vs. AEGIS / MEZ / JEZ**
  - ♦ **CAP (air) vs. Patriot / THAAD (land)**
  - ♦ **AEGIS (sea) vs. Patriot / THAAD (land)**
- ▮ **Provide answers to these questions:**
  - ♦ **What can our forces adequately defend?**
  - ♦ **Where should my assets be stationed / positioned?**
  - ♦ **How can I optimize allocation of scarce assets between JFMCC, JFLCC, & JFACC?**
- ▮ **Specific products in a CJTF / JFACC environment**
  - ♦ **Air Defense Plan (ADP)**
  - ♦ **ACMREQ, AIRSUPPREQ, TACOPDATs**
  - ♦ **Inputs to ATO / ACO / SPINS / MAAP**

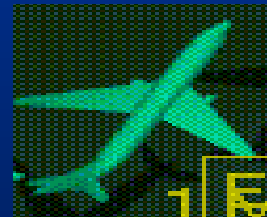
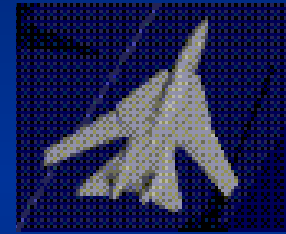


# AADC Operations 3-D View



# Operations Module

A situational awareness enhancement tool that allows you to see the entire theater in 3-D, using understandable graphic representations of aircraft, ships, ballistic missile trajectories, geography, and specified land-based platforms providing a fully **Integrated Air Picture**





# Operations Cell – CJTF / Command Ship configuration





# Operations Console



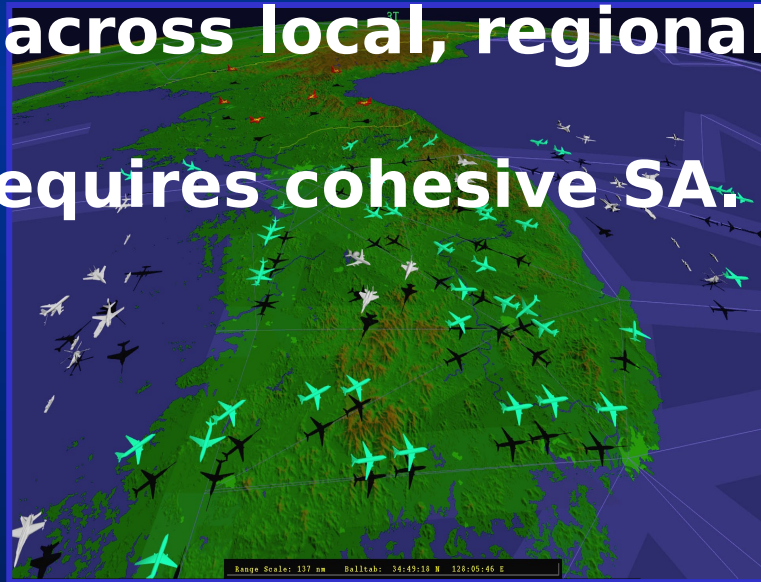


# PACOM FOCUS AREAS

- ▮ **For IMD 3-02 PLANEX, AADCS represents PACFLT / C7F Planning Cell and PACFLT / C3F / C7F force integrator for entire PACOM AOR**
- ▮ **Ability to M&S Full Threat Spectrum with C2BMC Limitations and Attack Operations Results**
- ▮ **Collaborative planning capability evaluation**
  - ◆ AADC / BMDS (JDP/JEDA/CAPS) Interoperability
  - ◆ Execute AADC Reachback planning to remote node
- ▮ **Cross COCOM Coordination for IMD**
  - ◆ Also CFMCC, CFACC, CFLCC IERs

# SUMMARY

- **AADCS is deployed NOW.**
- **The Lesson of OIF is that new systems and procedures are required for real IAMD, not a partial, segmented solution.**
- **Active C2 across local, regional, theater, and global areas requires cohesive SA.**



AADCS = Situational Awareness + Active C2  
with robust analysis